

**REMARKS**

The non-final Office Action issued March 29, 2004 has been reviewed and the comments of the U.S. Patent and Trademark Office have been considered. Claims 20 and 22 have been amended. Thus, applicants respectfully request reconsideration of pending claims 1-29.

Applicants thank the Examiner for the allowance of claims 1-19 and 29 and for indicating that claims 22, 24 and 25 would be allowable if rewritten into independent form. Claim 22 has been so amended. Accordingly claims 22, 24 and 25 are in condition for allowance.

Claims 23 and 26-28 stand rejected under 35 U.S.C. § 112, second paragraph, as allegedly being indefinite for failing to provide sufficient antecedent basis for “the space” recited in claims 23 and 26, each of which depend from independent claim 22. Applicants have amended claim 22 to provide sufficient antecedent basis. Therefore, the claim rejections to claims 23 and 26-28 have been overcome and should be withdrawn. Because claims 23 and 26-28 depend from allowable claim 22, these claims are also in condition for allowance.

Claims 20 and 21 stand rejected under 35 U.S.C. § 102(e) as allegedly being anticipated by U.S. Patent No. 6,364,220 to Wilke et al. (“Wilke”). In so far as the rejection is applicable to amended claim 20, applicants respectfully submit that Wilke fails to teach or suggest the invention as a whole.

Claim 20 has been amended to recite, among other features, a bobbin having a ferromagnetic portion, “the ferromagnetic portion being disposed between the tube and the electrical coil.” Support for the amendment to claim 20 is provided by the originally filed application, for example, at Figure 3 which shows the relative orientation of ferromagnetic axial extensions 70, 72.

In contrast, Wilke states that a solenoid coil is embedded with a bobbin core 3. (Wilke, col. 2, ln. 50 to col. 3, ln. 6). Wilke shows in FIG. 7 that the solenoid coil 1 surrounds a thin-walled sleeve 12 so that the coil 1 is in contact with the sleeve 12. Wilke, however, fails to show or describe a ferromagnetic portion disposed between the sleeve 12 and the solenoid coil 1. Instead the solenoid coil 1 is “mounted on” the sleeve 12. (*Id.*, col. 6, ln. 63). Because Wilke fails to show or describe a bobbin having a ferromagnetic portion disposed between a coil and a tube, as recited in claim 20, Wilke fails to teach or suggest the claimed invention as a whole. Accordingly claim 20 is patentable over Wilke.

**CONCLUSION**

In view of the foregoing amendments and remarks, applicants respectfully request the reconsideration and reexamination of this application and allowance of the pending claims 1-29. Applicants respectfully invite the Examiner to contact the undersigned at (202)739-5722 if there are any outstanding issues that can be resolved via a telephone conference.

Except for issue fees payable under 37 C.F.R. § 1.18, the Commissioner is hereby authorized by this paper to charge any additional fees during the entire pendency of this application including fees due under 37 C.F.R. §§ 1.16 and 1.17 which may be required, including any required extension of time fees, or credit any overpayment to Deposit Account No. 50-0310. This paragraph is intended to be a **CONSTRUCTIVE PETITION FOR EXTENSION OF TIME** in accordance with 37 C.F.R. § 1.136(a)(3).

Respectfully submitted,

**MORGAN, LEWIS & BOCKIUS LLP**

Date: June 24, 2004

By: 

David J. Baltazar

(Reg. No. 53,964)

**Customer No. 009629**  
MORGAN LEWIS & BOCKIUS LLP  
1111 Pennsylvania Ave., NW  
Washington, D.C. 20036  
Tel No. 202.739.3000